What is claimed is:

1 A moving picture decoding apparatus to which a compressed stream generated using an inter-frame prediction system is input, said apparatus comprises:

compression means for compressing a decoded image when the signal is stored in storage means;

expansion means for expanding a compressed image stored in said storage means;

quantization control means for controlling quantization on compression in said compression means; and

access width control means for controlling said quantization control means so that bit allocation control is conducted so as to be in conformity with the bit number of an access unit of said storage means.

2 A moving picture decoding apparatus according to claim 1, wherein said access width control means comprises means for controlling said quantization control means so that the coded bit number for one or a plurality of compression processing units or for every control unit of compression processing is in conformity with the bit number of an access unit of said storage means in case that the coded bit number exceeds the bit number of an access unit of said storage means or is lacking.

3 A moving picture decoding apparatus according to claim 1, wherein said compression means and expansion means

conduct compression and expansion, respectively, in accordance with a pixel difference prediction encoding system.

SUB A2

4 A moving picture decoding apparatus according to claim 1, further comprising a plurality of quantizers and a plurality of quantization characteristic tables.

5 A moving picture decoding apparatus according to claim 1, further comprising a plurality of quantizers and a quantization characteristic table being shared by said plurality of quantizers.

SUB B5

6 A moving picture decoding apparatus according to claim 1, wherein said compression means and expansion means conduct compression and expansion, respectively, in accordance with an orthogonal translation encoding system.

7 A moving picture decoding apparatus according to claim 1, wherein said access width control means conducts control using information included in the compressed stream.

8 A moving picture decoding apparatus according to claim 1, wherein said storage means is a frame memory.

SUB A3

9 A moving picture decoding apparatus to which a compressed stream generated using an inter-frame prediction system is input, said apparatus comprises:

compression means for compressing a decoded image;

storage means for storing a compressed image in said

compression means;

expansion means for expanding the compressed image stored in said storage means;

quantization control means for controlling quantization on compression in said compression means; and

said access width control means for applying bit allocation control to said quantization control means so as to be in conformity with the bit number of an access unit of said storage means, and

said quantization control means controls quantization in said compression means based on access width information from said access width control means so that generated information content for one or a plurality of compression processing units or for every control unit of compression processing is equal to or less than the bit number of an access unit of said storage means in case that the generated information content exceeds the bit number of an access unit of said storage means or is lacking.

10 A moving picture decoding apparatus according to claim 9, wherein said access width control means applies bit allocation control to said quantization control means so as to be in conformity with the bit number of an access unit of said storage means, based on an occupied content of said storage means.

11 A moving picture decoding apparatus according to claim

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9, wherein said access width control means conducts control using information included in the compressed stream.

SUB A4) 12 A moving picture decoding apparatus according to claim 9, wherein said access width control means applies control to said quantization control means so that, compared with the bit number of an access unit of said storage means, in case that the allocation bit number of a coded data of a compression processing unit exceeds the bit number of an access unit of said storage means or less than the bit number of an access unit of said storage means, the allocation bit number is equal to or less than the bit number of an access unit of said storage means by subtracting a predetermined number of bits from the allocation bit number of a coded data of said compression processing unit or by increasing the allocation bit number by the predetermined number of bits, whereby the coded data can be taken out by means of one access to said storage means.

13 A moving picture decoding apparatus according to claim 9, wherein said compression means controls quantization characteristic of quantizer for quantizing said decoded image, based on control of said quantization control means.

14 A moving picture decoding apparatus according to claim 9, further comprises a plurality of quantizers having

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quantization characteristics different from each other, and a quantization characteristic table is shared by said plurality of quantizers.

15 A moving picture decoding apparatus according to claim 9, wherein said compression means comprises a subtracter, a quantizer, an encoder, an inverse quantizer, an adder, and predictor,

a prediction error that is obtained in said subtracter by a subtraction between said decoded image and a predicted value from said predictor is supplied to said quantizer,

under control of said quantization control means, said quantizer quantizes said prediction error and supplies it to said encoder and said inverse quantizer,

said encoder encodes an output from said quantizer and outputs it to said storage means, and

inverse quantization and local decoding are conducted in said inverse quantizer, said adder, and said predictor.

Sub B7

16 A moving picture decoding apparatus according to claim 9, wherein said storage means is a frame memory.

SUBA5

17 A moving picture decoding method comprising the steps of:

detecting the coded bit number for one or a plurality of compression processing units or for every control unit of compression processing and

controlling said coded bit number so that said coded bit number is in conformity with the bit number of an access unit of a storage means when said detected coded bit number exceeds the bit number of an access unit of said storage means or is lacking.

18 A moving picture decoding method according to claim 17, wherein said step of controlling comprise a step of controlling using information included in the compressed stream.

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